

الف) $x^3 - 2x^2 - 1 = 0$ تابع است $\sqrt{x^2 + 2x - 1}$	ب) $x^3 + 2x^2 - 1 = 0$ تابع است $\sqrt{x^2 + 2x - 1}$	۱
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$$x^2 + y^2 - z^2 = 0 \rightarrow (x^2 - z^2) + (y^2) = 0 \quad (> 1)$$

$$x^2 (x-y) + y^2 (x-y) = 0 \rightarrow x-y (x^2 + y^2) = 0$$

SANA

$$x^2 + y^2 > 0$$

تابع است $x > y$

$$x - y = 0$$



$$\frac{1}{x+1} + \frac{1}{x+2} = 1, b=0 \rightarrow b=-1$$

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$$1) \frac{1}{\sqrt{x^2-1}} \geq 0 \rightarrow x^2-1 \geq 0 \rightarrow x(x^2-1) \geq 0 \rightarrow x(x-1)(x+1) \geq 0$$

$$-1 \quad 0 \quad 1$$

$$- \quad + \quad - \quad +$$

$$D = [-1, 0] \cup [1, \infty)$$

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$$2) \frac{1}{\sqrt{|x|-1}} \geq 0 \rightarrow |x|-1 \geq 0 \rightarrow |x| \geq 1 \rightarrow x \geq 1 \text{ or } x \leq -1 \rightarrow D = (-\infty, -1] \cup [1, \infty)$$

$$3) \frac{1}{\sqrt{|x|-[x]}} \geq 0 \rightarrow |x| \neq [x] \rightarrow D = \mathbb{R} - \mathbb{Z}^+$$

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$$4) \sqrt{x} + \sqrt{2} = 9 \rightarrow x \geq 0$$

$$\sqrt{2} \geq 0$$

$$\sqrt{2} = 9 - \sqrt{x} \rightarrow 9 - \sqrt{x} \geq 0 \rightarrow 9 \geq \sqrt{x} \rightarrow 81 \geq x \rightarrow D = [0, 81]$$

$$\frac{1}{\sqrt{[x-\frac{1}{p}] + [x+\frac{p}{p}]}} \geq 0 \rightarrow [x-\frac{1}{p}] + [x+\frac{p}{p}] \geq 0 \rightarrow [x-\frac{1}{p}] + [x-\frac{1}{p}] + 1 \geq 0$$

$$2[x-\frac{1}{p}] \geq -1 \rightarrow [x-\frac{1}{p}] \geq -\frac{1}{2} \rightarrow x-\frac{1}{p} \geq -\frac{1}{2} \rightarrow x \geq \frac{1}{p} - \frac{1}{2}$$

$$D = [\frac{1}{p}, \infty)$$

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$$\sqrt{1-\log_2(x-a)} \geq 0 \rightarrow 1-\log_2(x-a) \geq 0 \rightarrow \log_2(x-a) \leq 1 \rightarrow x-a \leq 2 \rightarrow x \leq 2+a$$

$$D = (\frac{a}{p}, \frac{1+a}{p}] \rightarrow b = \frac{a}{p} \quad c = \frac{1+a}{p}$$

$$\frac{1+a}{p} - \frac{a}{p} = \frac{1+a-a}{p} = \frac{1}{p} = d$$

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